



April 27, 2005

Mr. Harry Stoller
Illinois Commerce Commission
527 East Capitol Ave.
Springfield, IL 62701
Email: hstoller@icc.state.il.us

RE: Request for comments on DR/EE implementation plans presented at the second round of working group meetings

Dear Mr. Stoller:

RETX Energy Services Inc. (RETX) and Summit Blue Consulting, LLC (SB) appreciates the opportunity to participate in the Illinois Sustainable Energy discussions. We are excited that Governor Blagojevich has asked the Illinois Commerce Commission (ICC) to pursue this investigation and we would like to assist the Commission with this important project. This effort can have a significant ability to improve the way energy is consumed throughout Illinois.

RETX has been providing demand response software and consulting services for over five years (see www.retx.com). We have been active in New England and in New York since they began investigating how demand response can fit into their wholesale market structures. Ross Malme, our CEO, is the current Chairman of the Peak Load Management Alliance, a DR industry trade association of which Commonwealth Edison is a member, and was appointed as the Operating Agent for the International Energy Agency's Demand Side Management Programme's Task XIII: Demand Response Resources (IEA DRR).

Summit Blue (see www.summitblue.com) is a leading consulting company specializing in demand response program development and program evaluations. Summit Blue recently completed program effectiveness studies for the Community Energy Cooperative in Chicago, the California Energy Commission and the New York State Energy Research and Development Authority.

As the Operating Agent for the IEA DRR project, RETX provides all project management as well as direct responsibility for various project subtasks. RETX contracted with SB to support various technical economic aspects of the project. Given that our firms are working closely together on IEA DRR, we thought it would be best to submit joint



comments to the DR/EE Workgroup. Our comments are focused on the things that we are developing via the IEA DRR project. We believe that many of the things we are working on via this project could benefit the DR/EE Workgroup as it works through the detailed development process in the coming months. Therefore, we offer these comments solely to educate the workgroup participants about our work.

The IEA DRR project started in May 2004 (see www.demandresponseresources.com). It is an 11-nation¹ project that is developing a set of toolkits that will help enable the development of demand response solutions in liberalized markets. The US Department of Energy and the Federal Energy Regulatory Commission provide oversight on behalf of the United States and similar organizations in the participating nations do so on the behalf of their respective nations as well. The US has also created a stakeholder group consisting of utilities, DR research organizations, and DR technology vendors called the US Demand Response Coordination Committee (USDRCC)².

The IEA DRR project has been charged with reviewing DRR practices in various markets around the world and developing recommendations on best practices for integrating DRR into regular market activities. The primary objectives of this project are:

Project Objectives

1. Identify and develop the country-specific information needed to establish the existing stock of and potential for demand response.
2. Perform the market and institutional assessment needed to set realistic goals for the contribution of DRR to sector objectives.
3. Mobilize technical and analytic resources needed to complete the project.

This project will meet these objectives by completing the following project subtasks:

Subtasks:

1. Finalize Global and Country-Specific Objectives
2. Define DR Resource Base and Market Characterization
3. Market Potential of DRR
4. Demand Response Valuation
5. Role and Value of Enabling Technologies
6. Characterize Priorities and Barriers, and Develop Solutions and Recommendations
7. Develop DRR Network of Methods, Tools and Applications
8. Deliver Products and IP to IEA DSM Programme and Project Participants

¹ Participants include Australia, Denmark, Finland, Italy, Japan, Korea, Netherlands, Norway, Spain, Sweden and the United States of America

² On June 19, 2005, the USDRCC, FERC and DOE are hosting a National Town Meeting on Demand Response (see www.demandresponsetownmeeting.com)



As we listened to the implementation presentations from ComEd and Ameren on April 20, 2005, we realized that many of the things we are doing with this IEA DRR project might be useful to this workgroup. For example, we are in the process of collecting information on DR products from markets around the world. This database may assist with product design as well as provide guidance on what things impacted the success of the various products. In addition, we are also developing a methodology for calculating the value that demand response has in a market and with the respective market actors. Most project participants (as well as leading demand response research organizations) indicate that this is a key missing link for DR programs.

We thank you for the ability to share this information with you, the ICC, and the DR/EE workgroup participants. We hope that it was informative and that our Task XIII work will be useful to you as you move forward with your deliberations.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Pete Scarpelli", on a light green rectangular background.

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Attachment: IEA DRR Project Subtask Descriptions

Cc: Michelle Mishoe (mmishoe@icc.state.il.us)



ATTACHMENT

IEA DRR Project Subtask Descriptions

Subtask 1 --Finalize Global and County-Specific Objectives:

This task will define the basic principles on which the project would proceed and involve three steps:

1. Develop global objectives based upon IEA principles.
2. Develop country-specific objectives, with each participating country customizing their own objectives within the global objectives.
3. Finalize the deliverables that would be produced by this Annex including how they would be applicable to each participating country.

The country specific objectives would include prioritization of objectives and a determination of how each objective relates to each participating country. The subtask would be accomplished by taking the following actions:

- An initial position paper on project objectives and deliverables would be developed by the Operating Agent
- A kick-off meeting would be held to obtain member input on the proposed objectives and deliverables proposed in the initial position paper.
- Development of country-specific objectives.

Subtask 1 Deliverable – The deliverables from this subtask will be:

1. The introductory chapters in the project guidebook detailing the consensus objectives, project deliverables on a task-by-task basis, and a section for each country summarizing country-specific objectives.
2. The project portal will also be initially deployed to enable collaboration and sharing of information.

Subtask 2 -- Define the DR Resource Base and Market Characterization:

This will involve a market characterization of demand response products, services and enabling technologies. It would identify the market actors involved and the decisions that need to be made by market actors to effectively deploy DRR. Steps to be taken in this subtask include:

- Gather reports and studies on DR methods and applications from participating countries and any other relevant source.
- Develop a classification scheme for DR products, services and technologies that recognizes important product and delivery features.
- Characterize the methods, policies and processes that can be used to integrate DRR into liberalized electricity markets.
- Identify existing DR efforts and catalogue their operation and performance to create a best practices database.

Subtask 2 Deliverables – The deliverables from this subtask will be:

1. The Market Characterization Toolkit which includes a guide for performing market characterization (Chapter 3 of the guidebook), surveys and forms, sample answers to assist in performing surveys, and a comparative report of the market characteristics of the participating countries.
2. The Communication Toolkit which includes a guide for developing a DR communications or marketing plan (Appendix 3 of the guidebook), questionnaires and forms, case studies of successful communications campaigns, and sample marketing material from a variety of programs and markets.
3. The Research Library which contains white papers, case studies, and technical reports from around the world categorized by topic.

Subtask 3 – Market Potential of DRR

This subtask will examine those factors that make DRR economic with specific application to participating countries. This effort will build on the results of subtask 2 and the best practices database to determine how much DRR would be economic within different markets and under different market conditions. The steps in this subtask would include:

- Define markets within countries based on DRR product and delivery features.
- Develop common methodology for estimating economic DRR potential.
 - On a regional level and on a country level.

- Develop DRR potential relationships, i.e., how the amount of economic DRR will vary given changes in key variables (e.g., operating reserves, peak and off-peak prices, customer characteristics, and technology costs).

Subtask 3 Deliverable – The deliverables from this subtask will be:

1. The DR Potential Toolkit which includes a guide for performing a DR potential study (Chapter 4 of the guidebook), surveys and forms to use in performing the study, and an analytical report containing the outcome of all potential studies performed by the participating countries to serve as a proxy / point of reference for performing future studies.
2. The Economic Working Group serves as the review board for the DR Potential Toolkit and will perform a quality control / validation function for the toolkit.

Subtask 4 – Demand Response Valuation

This task will develop the methods and procedures required to establish the value of DR in each country to create a valuation framework to guide development initiatives. This value of DRR can be compared to the market potential developed in Subtask 3 to set initial targets for DRR within regions and countries. The steps to be taken in this subtask include:

- Assess the public value of DR by establishing how DR contributes to system reliability and price stabilization objectives of liberalized markets.
- Assess the private value of DR by characterizing customers' acceptance of DR program features and how that influences program participation and quantify price responsiveness.
- Create an integrated value model that fully characterizes the level and distribution of benefits associated with DR programs, recognizing different market structures, products designs and customer participation and response.
- Conduct workshops to train country experts on the use and interpretation of the integrated value model.
- Create a stylized case study to serve as a reference for countries choosing to perform their own valuation studies.

Subtask 4 Deliverable – The deliverables from this subtask will be:

1. The DR Valuation Toolkit which includes a guide for performing DR valuation studies (Chapter 5 of the guidebook), an inventory of models and methods used to perform the studies, a report on findings and recommendations targeted to non-technical audiences (administrators, regulators, executives, etc), and a report on findings and recommendations targeted to technical audiences (people actually performing valuation studies and doing detailed planning).
2. The Economic Working Group serves as the review board for the DR Valuation Toolkit and will perform a quality control / validation function for the toolkit.

Subtask 5 – Role and Value of Enabling Technologies

The focus of this task will be to develop a catalogue that describes the technologies and systems that are available for use in DR programs both from the perspective of the system operator and the participating customer. The value of technologies and systems of different applications will also be addressed. The steps to be taken include:

- Develop catalogue scheme that organizes devices and systems according to how they provide value to customers and/or system operators.
- Identify current country applications by applying the scheme to each country, identifying current practices and applications and characterizing their performance, benefits and costs.
- Catalogue new and potential technologies and systems.

Subtask 5 Deliverable – The deliverables for this subtask will be:

1. The Technology Assessment and Selection Toolkit which includes a guide for evaluating and selecting appropriate technology for DR programs (Chapter 6 of the guidebook), a database of current and future technology developed for the demand response market, case studies, and best practices in technology utilization.
2. The State of the Practice Working Group serves as the review board for the DR Technology Toolkit and will perform a quality control / validation function for the toolkit.

Subtask 6 – Characterize Priorities and Barriers, and develop Solutions and Recommendations



The focus of this task will be to identify common market, political, and regulatory barriers to implementation of DR programs and formulate strategies to overcome them. This final section will set the stage for developing a comprehensive, justifiable business case for introduction of DR into the target market.

- Create stakeholder groups in each country.
- Develop methods for soliciting and analyzing information on barriers and priorities.
- Implement surveys, conduct focus groups and other information outreach initiatives.
- Assess potential governmental policies that might help overcome identified barriers.
- Develop market design recommendations that address barriers to economic DRR.
- Write an implementation strategy for DR programs in the local market using the tools and output of subtasks 1-5

Subtask 6 Deliverable – The deliverables for this subtask will be:

1. The Barrier and Solutions Toolkit which includes a guide for identifying barriers and potential solutions (Chapter 7 of the guidebook) and a repository of case studies in overcoming a variety of barriers to DR adoption in a variety of markets.
2. The DR Market Implementation Strategy Toolkit which include a guide for outlining and developing an effective implementation strategy for DR (Chapter 8 of the guidebook) and a sample DR Implementation Strategy to serve as a reference.

Subtask 7 – Develop DRR Network of Methods, Tools and Applications

This subtask will involve creating a web portal that will be a virtual center of excellence concerning regarding DRR methods, technologies, and applications. This will include processes and procedures for estimating DRR market potential, and public and private values of DRR. It will also include information on best practices for implementing DRR and the role of enabling technologies and systems. The steps to be taken in this subtask include:

- Develop an online repository for DRR information and project results using web portal and library protocols that will make all the information, products, and reports from this effort accessible to participating countries.
- Manage a periodic DRR Project newsletter (The Demand Response Dispatcher) to project participants, which will include information from the OA on recent and upcoming deliverables, new functionality of the Project Portal, and recent industry events involving demand response.
- Conduct periodic Experts Meetings to facilitate the development and utilization of the processes and tools developed by this project.

Subtask 7 Deliverable – The deliverables for this subtask will be:

1. An internet portal (www.demandresponseresources.com) that provides access to DRR information, tools, and best practices developed through this work effort.
2. A DRR Newsletter (the Demand Response Dispatcher) from the OA Country

Subtask 8 – Deliver Products and IP to IEA DSM Programme and Project Participants

This subtask will focus on the delivery of the intellectual property created in the DRR Project to the IEA DSM Programme and the participating countries.

- Turn over of DRR Project Portal to IEA DSM IT team and training for ongoing operation, maintenance and support
- Conduct regional workshops (4) to deliver project products and tools to country stakeholder groups and conduct training.
- Deliver Final report to IEA DSM Executive Committee

Subtask 8 Deliverable – The deliverables for this subtask will be:

1. Transfer DRR Project Portal operation, maintenance and training to IEA DSM Programme IT team
2. Conduct 4 regional workshops with Country Experts and Stakeholder teams.
3. Complete DRR Project final report and submit to ExCo.